

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of facilitating redirection of ~~traffic~~ data sent from a first processing device to a second processing device, the method comprising:

at a third processing device associated with a plurality of traffic handling systems, receiving traffic information from each of the associated traffic handling systems, wherein the traffic information received from each associated traffic handling system specifies which data based on at least a portion of the data should be redirected to the each associated traffic handling system; ~~and~~

determining how to redirect data received by the third processing device to a selected traffic handling system based on the received traffic information from each of the associated traffic handling systems;

at the third processing device, receiving data from one or more first processing devices that are destined for one or more second processing devices; and

at the third processing device, redirecting the received data to selected one or more of the traffic handling systems so that the redirected data are apportioned between the traffic handling systems based on the traffic information from each of the associated traffic handling systems and at least a portion of the received data.

2. (Previously presented) A method as recited in claim 1, wherein the determination of redirecting data is accomplished by:

communicating the traffic information to at least a designated one of the associated traffic handling systems; and

at the third processing device, receiving traffic redirection information from the designated traffic handling system, the traffic redirection information being based on the communicated traffic information.

3. (Previously Presented) A method as recited in claim 2, further comprising:

at the third processing device, building or updating a data structure based on the received traffic information, wherein the traffic information is communicated to the designated traffic handling system within the data structure.

4. (currently amended) A method as recited in claim 2, further comprising:

in the third processing device, receiving a packet from ~~the~~ a first processing device destined for ~~the~~ a second processing device; and

redirecting the packet to a selected one of the traffic handling systems based on the traffic redirection information.

5. (currently amended) A method as recited in claim 4, further comprising:

receiving the packet back in the third processing device after redirecting it to the selected traffic handling system;

determining that the packet is to be sent to the packet's original destination address instead of being redirected to the selected traffic handling system; and

sending the packet from the third processing device to its original destination.

6. (Original) A method as recited in claim 5, wherein it is determined that the packet is to be sent to the packet's original destination by determining that the packet is encapsulated and de-encapsulating the packet prior to sending the packet to its original destination.

7. (Previously presented) A method as recited in claim 1, wherein the traffic information sent from a selected traffic handling system to the third processing device includes service options specifying which data is to be redirected to the selected traffic handling system.

8. (Original) A method as recited in claim 7, wherein the service options include a plurality of fields that are configurable to indicate that one or more fields of a packet received in the third processing device are to be used to determined redirection of packets to the selected traffic handling system.

9. (Original) A method as recited in claim 8, wherein the fields are selected from a group consisting of a source IP field, a destination IP field a source port field, a destination port field, a source IP alternative field, a destination IP alternative field, a source port alternative field, and a destination port alternative field.

10. (Original) A method as recited in claim 9, wherein each field indicates that a corresponding field of a packet received in the third processing device is to be used to generate an index to a table identifying the plurality of associated traffic handling systems, the generated index being associated with the selected traffic handling system.

11. (Original) A method as recited in claim 10, wherein each field indicates that a hashed value of the corresponding field of the received packet is to be used to generate the index to the table identifying the plurality of associated traffic handling systems.

12. (Original) A method as recited in claim 8, wherein at least one of the fields may be set to indicate one or more port identifiers of traffic received in the third processing device.

13. (Original) A method as recited in claim 8, wherein the fields are selected from a group consisting of a port 0 field, a port 1 field, a port 2 field, a port 3 field, a port 4 field, a port 5 field, a port 6 field, and a port 7 field.

14. (Original) A method as recited in claim 13, wherein the fields includes a source/destination field to indicate whether the port identifiers of the received traffic are source ports or destination ports.

15. (Original) A method as recited in claim 6, further comprising:

in the third processing device, receiving a packet from the first processing device destined for the second processing device; and

when one or more port identifiers of the received packet matches a corresponding set field of the service options of the selected traffic handling system, redirecting the packet to the selected traffic handling system.

16. (Original) A method as recited in claim 1, wherein the traffic information sent from a selected traffic handling system to the third processing device includes security options for specifying an authentication level for messages communicated between the third processing device and the selected traffic handling system.

17. (Original) A method as recited in claim 16, wherein the security options are configurable to select no authentication for messages communicated between the third processing device and the selected traffic handling system.

18. (Original) A method as recited in claim 16, wherein the security options are configurable to require a predetermined password encoded within messages communicated between the third processing device and the selected traffic handling system.

19. (Original) A method as recited in claim 1, wherein the traffic information sent from a selected traffic handling system includes identifying information for the selected traffic handling system.

20-39. (Cancelled)

40. (Previously presented) A first computer system associated with a plurality of traffic handling systems and operable to facilitate redirection of ~~traffic~~ data sent from a second computer system to a third computer system, the traffic being redirected to a selected traffic handling system, the computer system comprising:

a memory; and

a processor coupled to the memory,

wherein at least one of the memory and the processor are adapted to provide:

receiving traffic information from each of the associated traffic handling systems, wherein the traffic information received from each associated traffic handling system specifies which data based on at least a portion of the data should be redirected to the each associated traffic handling system;

communicating the received traffic information to at least a designated one of the associated traffic handling systems; ~~and~~

receiving traffic redirection information from the designated traffic handling system, the traffic redirection information specifying which data is to be redirected to which one of the plurality of traffic handling systems and being based on the communicated traffic information;

receiving data from one or more second computer systems that are destined for one or more third computer systems; and

redirecting the received data to selected one or more of the traffic handling systems so that the redirected data is apportioned between the traffic handling systems based on the traffic information from each of the associated traffic handling systems and at least a portion of the received data.

41. (Original) A computer system as recited in claim 40, wherein at least one of the memory and the processor are further adapted to provide:

building or updating a data structure based on the received traffic information, wherein the traffic information is communicated to the designated traffic handling system within the data structure.

42. (Original) A computer system as recited in claim 40, wherein at least one of the memory and the processor are further adapted to provide:

receiving a packet from a second computer system destined for a third computer system; and

redirecting the packet to a selected one of the traffic handling systems based on the traffic redirection information.

43. (Currently amended) A computer system as recited in claim 42, wherein at least one of the memory and the processor are further adapted to provide:

receiving the packet back in the first computer system after redirecting it to the selected traffic handling system;

determining that the packet is to be sent to the packet's original destination address instead of being redirected to the selected traffic handling system; and

sending the packet from the first computer system to its original destination.

44. (Original) A computer system as recited in claim 43, wherein it is determined that the packet is to be sent to the packet's original destination by determining that the packet is encapsulated and de-encapsulating the packet prior to sending the packet to its original destination.

45. (Previously presented) A computer system as recited in claim 40, wherein the traffic information sent from a selected traffic handling system includes service options specifying which data to be redirected to the selected traffic handling system.

46. (Original) A computer system as recited in claim 45, wherein the service options include a plurality of fields that are configurable to indicate that one or more fields of a packet received in the first computer system are to be used to determined redirection of packets to the selected traffic handling system.

47. (Original) A computer system as recited in claim 46, wherein the fields are selected from a group consisting of a source IP field, a destination IP field, a source port field, a destination port field, a source IP alternative field, a destination IP alternative field, a source port alternative field, and a destination port alternative field.

48. (Original) A computer system as recited in claim 47, wherein each field indicates that a corresponding field of a packet received in the first computer system is to be used to generate an index to a table identifying the plurality of associated traffic handling systems, the generated index being associated with the selected traffic handling system.

49. (Original) A computer system as recited in claim 48, wherein each field indicates that a hashed value of the corresponding field of the received packet is to be used to generate the index to the table identifying the plurality of associated traffic handling systems.

50. (Original) A computer system as recited in claim 46, wherein at least one of the fields may be set to indicate one or more port identifiers of traffic received in the computer system.

51. (Original) A computer system as recited in claim 50, wherein the fields are selected from a group consisting of a port 0 field, a port 1 field, a port 2 field, a port 3 field, a port 4 field, a port 5 field, a port 6 field, and a port 7 field.

52. (Original) A computer system as recited in claim 51, wherein the fields includes a source/destination field to indicate whether the port identifiers of the received traffic are source ports or destination ports.

53. (Original) A computer system as recited in claim 50, wherein at least one of the memory and the processor are further adapted to provide:

receiving a packet from a first processing device destined for a second processing device; and

when one or more port identifiers of the received packet matches a corresponding set field of the service options of the selected traffic handling system, redirecting the packet to the selected traffic handling system.

54. (Previously presented) A computer system as recited in claim 53, wherein the traffic information sent from a selected traffic handling system to the first computer system includes security options for specifying an authentication level for messages communicated between the first computer system and the selected traffic handling system.

55. (Original) A computer system as recited in claim 54, wherein the security options are configurable to select no authentication for messages communicated between the first computer system and the selected traffic handling system.

56. (Original) A computer system as recited in claim 54, wherein the security options are configurable to require a predetermined password encoded within messages communicated between the first computer system and the selected traffic handling system.

57. (Original) A computer system as recited in claim 40, wherein the traffic information sent from a selected traffic handling system includes identifying information for the selected traffic handling system.

58-77. (Cancelled)

78. (Currently Amended) ~~A computer program product~~ a computer readable storage medium for facilitating redirection of ~~traffic data~~ sent from a first processing device to a second processing device, ~~the computer program product~~ comprising:

~~at least one tangible computer readable medium;~~

~~computer program instructions stored within the at least one computer readable product configured to cause a processing device to provide:~~

computer readable code for ~~at a third processing device associated with a plurality of traffic handling systems, receiving traffic information, at a third processing device associated with a plurality of traffic handling systems,~~ from each of the associated traffic handling systems, wherein the traffic information received from each associated traffic handling system specifies which data based on at least a portion of the data should be redirected to the each associated traffic handling system;

computer readable code for communicating the traffic information to at least a designated one of the associated traffic handling systems; ~~and~~

computer readable code for ~~at the third processing device,~~ receiving traffic redirection information, at the third processing device, from the designated traffic handling system, the traffic redirection information specifying which data is to be redirected to which one of the plurality of traffic handling systems and being based on the communicated traffic information;

computer code for receiving data, at the third processing device, from one or more first processing devices that are destined for one or more second processing devices; and

computer code for redirecting, at the third processing device, the received data to selected one or more of the traffic handling systems so that the redirected data are apportioned between the traffic handling systems based on the traffic information from each of the associated traffic handling systems and at least a portion of the received data..

79. (Cancelled)

80. (Previously presented) An apparatus for facilitating redirection of ~~traffic~~ data sent from a first processing device to a second processing device, wherein the apparatus is associated with a plurality of traffic handling systems, the apparatus comprising:

means for receiving traffic information from each of the associated traffic handling systems, wherein the traffic information received from each of the associated traffic handling systems specifies which data based on at least a portion of the data should be redirected to the each associated traffic handling system; ~~and~~

means for determining how to redirect data received by the apparatus to a selected traffic handling system based on the received traffic information;

means for receiving data, at the third processing device, from one or more first processing devices that are destined for one or more second processing devices; and

means for redirecting, at the third processing device, the received data to selected one or more of the traffic handling systems so that the redirected data are apportioned between the traffic handling systems based on the traffic information from each of the associated traffic handling systems and at least a portion of the received data..

81-82. (Cancelled)